

SUBJECT: Constant Set-Up Mechanism  
LA-6-W Model

DATE: August 10, 1934

TO ALL OFFICES:-

This Bulletin illustrates and describes the method to be followed when adjusting and testing the Constant Mechanism.

- 1 - Register figures in the lower dials; turn the carriage clear crank (J) slowly in the direction of arrow (H) and note the engagement of fingers (Z) and (F) with the clear pins (K) and (L). The fingers should engage pins (K) and (L) with a full hold, providing the rear extension of finger (F) engages clear pin (G) with sufficient hold while the upper dials are being cleared. Set screws (M) provide an adjustment of studs (C) and (N) in relation to cams (B) and (A) for regulating the hold of the fingers (Z) and (F) on clear pins (K), (L) and (G).

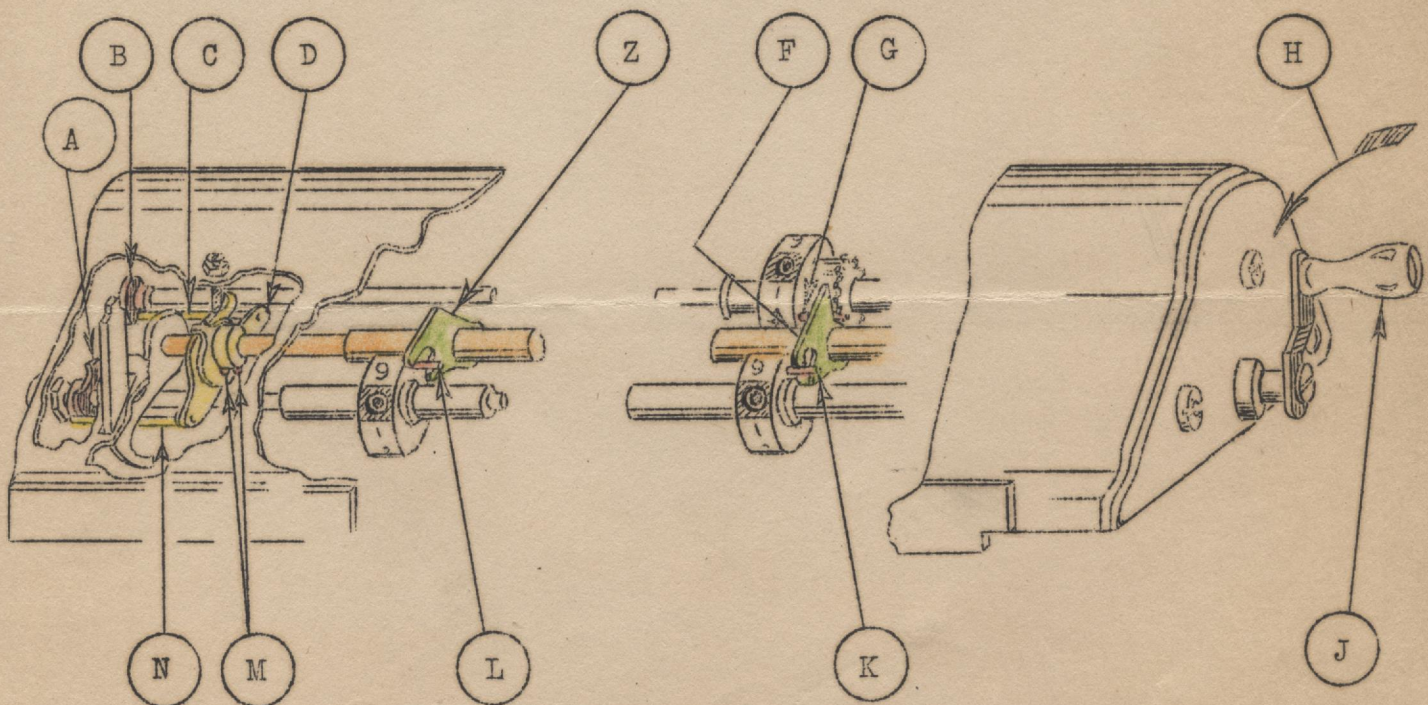


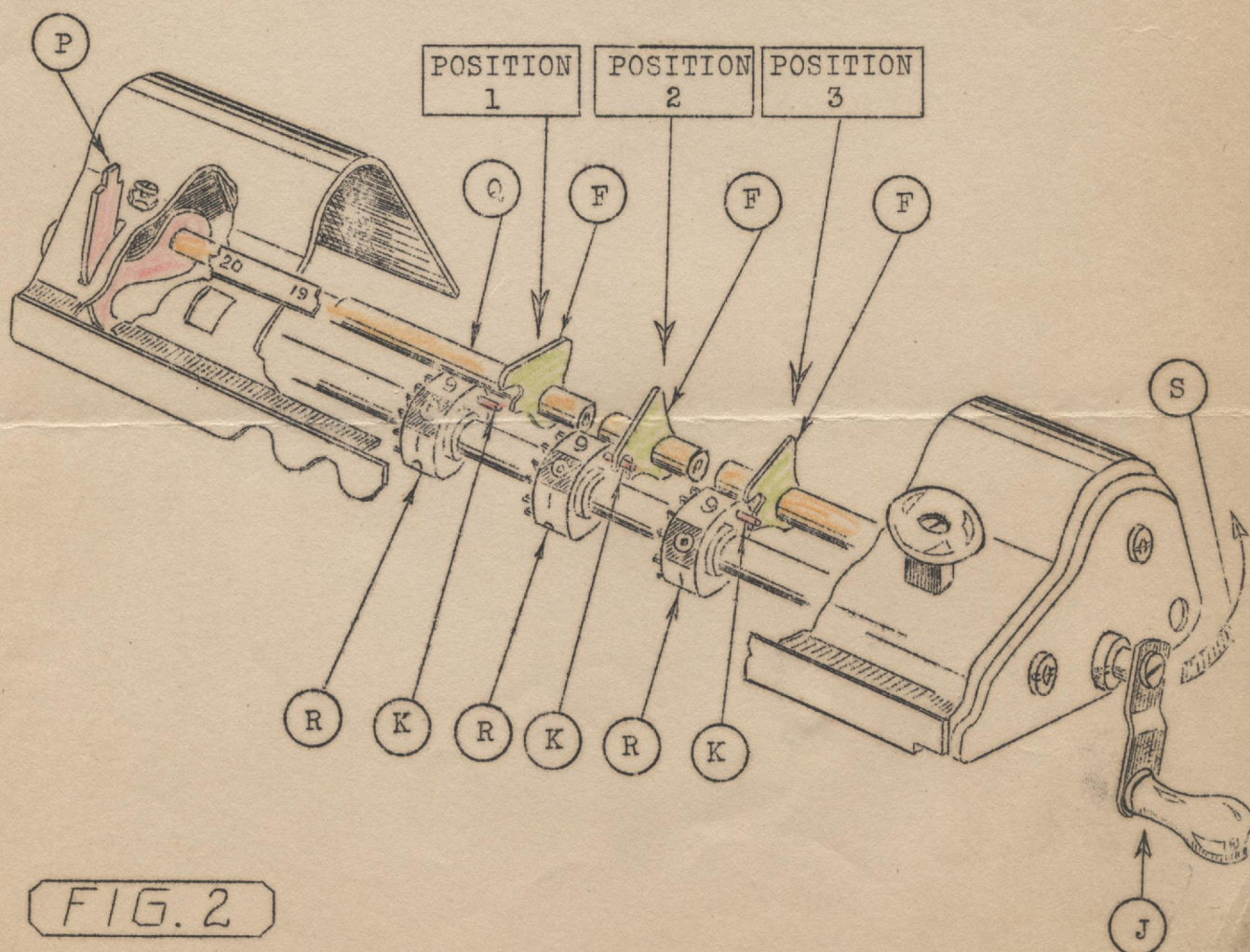
FIG. 1



- 2 - With the constant key (P) in neutral position, finger (F) should not engage clear pin (K) on dial (R), as shown in Position 1.

With constant key (P) in neutral, the normal clearout of figures registered in the lower dials occurs when crank (J) is turned in the direction of arrow (S), causing finger (F) to engage clear pin (K) on dial (R), as shown in Position 3.

When trip rod (Q) is operated by depressing the constant key (P), finger (F) should engage clear pin (K) on dial (R), as shown in Position 2.





- 3 - When the constant key (P) is depressed, the trip rod (Q) causes finger (F) to engage clear pin (K) with sufficient hold to prevent (K) from disengaging from (F) while the lower dials are being cleared. Screw (T) is provided to regulate the engagement of finger (F) with clear pin (K) by controlling the movement of the rocker assembly (D). This adjustment of screw (T) does not affect the relation of finger (F) with the upper dial clearing pin shown as (G) in Figure 1, Plate 1. Do not attempt to adjust screw (T) until the rocker assembly (D) has been properly adjusted as instructed on Plate 1. Nut (U) is provided to secure screw (T) in position after the desired adjustment has been made.

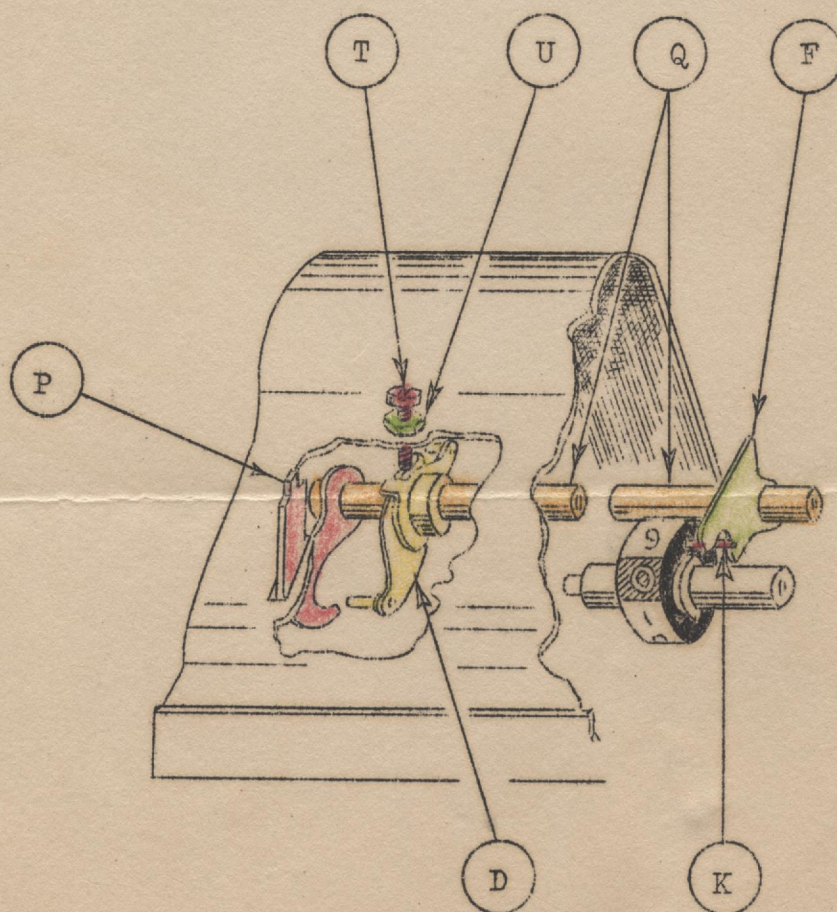


FIG. 3



- 4 - If the clear pin (K) seats too deeply in aperture (V) of finger (F), (see Figure 4,) it may cause dial (R) to function sluggishly, off-times resulting in half figures appearing in the carriage windows. To remedy this condition turn screw (T), Figure 3, Plate 3, downward until the finger (F) is positioned in relation to the clear pin (K), as shown in Figure 6. Do not turn screw (T), downward in excess of the movement required, as trouble will be encountered due to the clear pin (K) disengaging from finger (F) when (K) should be locked in aperture (V). See Figure 5.

FIG. 4

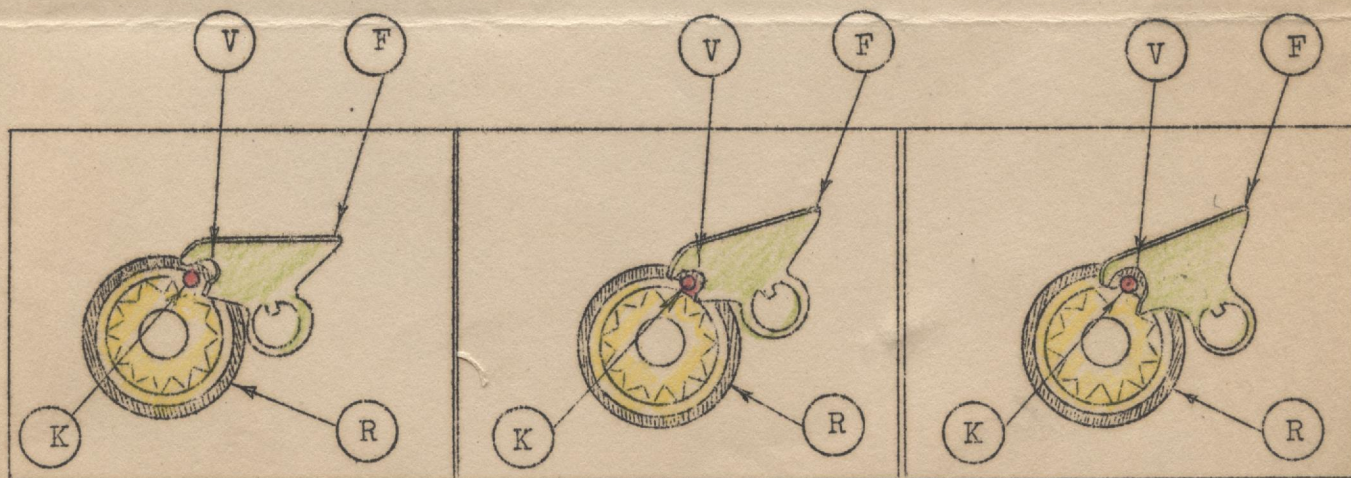
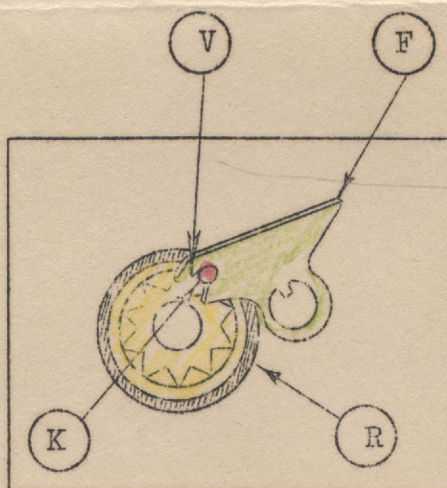


FIG. 5

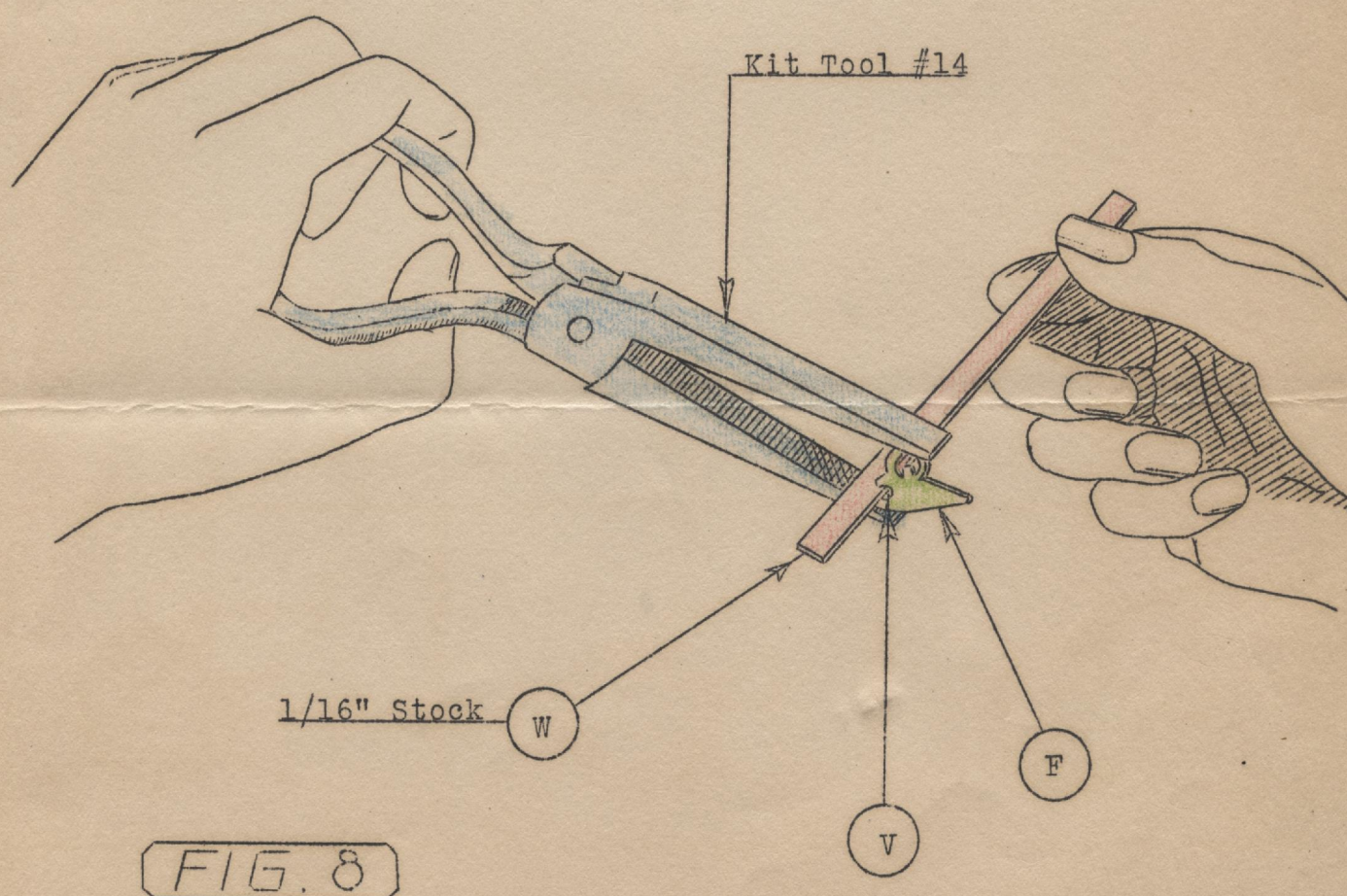
FIG. 6

FIG. 7



5 - After adjustments have been correctly made, as covered on the preceding Plates, if figures remain in the registering dials when attempting to clear the constant multiplier, it is probably due to aperture (V) being too open, as shown in Figure 7, Plate 4. This condition allows excessive movement of clear pin (K), Figure 7, Plate 4, and may cause excessive rocking of the dial, which movement may result in depressing a wedge. Due to such a condition nines may register and at other times the machine may fail to take out the complete figure in the dials. To overcome this trouble remove the registering dial shaft and close aperture (V) in finger (F) with Kit Tool #14. Previous to closing the aperture insert a piece of stock (W) 1/16" thick, as shown in Figure 8, to prevent its being broken or closed too much. Install the registering dial shaft in the carriage and test the constant mechanism as instructed on Page 1 of this bulletin.

(Note: In conjunction with the above mentioned adjustments consult Machine Service Bulletin No. 178 - Plates 3 & 4.





Operating Test for Model LA-6-200W

- 1 Add all 9's 100 times in each position and divide out automatically.
- 2 Add 9987654321 nine times in each position and divide out automatically.
- 3 Add 1234567899 nine times in each position and divide out automatically.
- 4 Add 1234554321 nine times in each position and divide out automatically.
- 5 Add 9876556789 nine times in each position and divide out automatically.
- 6 Register all 9's in the registering dials by depressing the #1 key in the first keyboard column and depressing the minus bar once. With the carriage clearout crank, clear the carriage to determine if the dial plunger springs are weaker than the index ring springs.
- 7 Register all 1's in the counting dials and clear the carriage with the carriage clearout crank.
- 8 Divide 0000 etc. by "1" and also multiply "1" across carriage by 00000000.
- 9 Test constant multiplier by setting up eight figure 8's in keyboard, hold the constant key downward and depress the plus key. With the eight figure 8's set up in keyboard, hold the constant key downward and depress the minus key. The dials should now be cleared. Repeat this test using eight figure 1's. Test the tripping of the overcarry trip lever in all positions except the first by holding the constant key downward and operating the plus and minus keys.
- 10 Multiply 10000001 by 10000001 and divide out automatically.
- 11 Multiply 10010101 by 10010101 and divide out automatically.
- 12 Multiply eight 1's by eight 1's and divide out automatically.
- 13 Multiply (12 x 12) (123 x 123) etc. to (12345678 x 12345678) and divide out automatically.
- 14 Multiply 87654321 by 87654321 and divide out automatically.
- 15 Multiply eight 1's and ten 1's and divide out automatically. Multiply eight 2's and ten 2's etc. including 9's and divide out automatically.
- 16 Add all 1's in the left side of carriage; subtract all 1's from the right side of carriage and divide out the figures in the carriage automatically.  
  
Add all 2's, 3's etc. including 9's in the left side of carriage. Subtract all 2's, 3's etc. including 9's from the right side of carriage and divide out the figures in the carriage automatically.
- 17 Add entire keyboard horizontally and subtract diagonally with the non-repeat key depressed.
- 18 Depress all keys (2 rows at a time) and operate the master clearout key to determine if the buttons disengage from the keystems.

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